

North American Drought Monitor – Discussion – May 2004

CANADA: In British Columbia, snowlines throughout the province are higher than usual for this date. Unless there are substantial rains in the next few months (not forecast) this will result in earlier than normal fire hazards. The groundwater levels in the southern regions identified as abnormally dry and moderate drought, range from average to record low. The province is recommending that residents of the Bulkley Valley, Nechako, Okanagan, Nicola, North Thompson, Kootenays, southern Vancouver Island, much of the not above-mentioned Southern Interior, and possibly the Liard, should start practicing strict water conservation. In Alberta, where drought conditions remain most pronounced, the 2004 crop season suffers under cool, dry conditions. Lack of soil moisture reserves, particularly at the sub-surface level, is reported in many areas. Surface moisture is adequate for seed germination in most areas. Dugout levels and pasture conditions remain below normal for this time of year. Major irrigation reservoirs remain at below normal levels for this time of year. Within some of the larger irrigation districts, reductions of normal water deliveries may occur. Most major rivers in southern Alberta have below normal flows for this time of year. In Saskatchewan, many regions received adequate to excessive amounts of precipitation. The west central and northwest regions continue to experience some water supply and soil moisture shortages. Pastures are still significantly impacted in these regions. Grasshopper infestations are beginning to be reported in Alberta and Saskatchewan.

In Manitoba and Ontario precipitation for the month of May was well above average. Most regions, with the exception of north and east of Prince Edward County, have no low flow concerns. The Great Lakes precipitation for May was about 194 % of average, with inflows to the lake being near record levels. The monthly mean levels of the Great Lakes, with the exception of Lake Ontario, remained below average but lakes are above last year's levels. In Quebec seeding has advanced and crop development is generally normal or slightly behind with no drought problems. Frost in early May caused widespread damage to market garden crops and fruits. In Atlantic Canada some recent warm dry weather has improved crop development. While precipitation amounts are below average in some areas no drought issues are evident.

UNITED STATES: May was warmer and drier than normal across the Southeast, southern and central Plains, and parts of the West. Efficient evaporation and transpiration resulted in drier topsoils and deteriorating pasture and range lands, which led to drought persistence or intensification. D0 and D1 were expanded, and D2 introduced, in the Southeast. According to preliminary data from NOAA's National Climatic Data Center, May 2004 was the second driest May in the 110-year record for Oklahoma and Arizona, and fourth driest for Colorado. In the southern Plains states of Texas and Oklahoma, D0 and D1 expanded, and D3 expanded into the central Plains state of Nebraska. Moderate to extreme drought persisted across much of the West, especially in the Southwest states. Monthly mean streamflow ranked in the bottom 10 to 24 percentile across much of these areas.

Above-normal rainfall brought improving conditions to the Upper Midwest and short-term relief to the drought areas of the Pacific Northwest. The D0-D1-D2 area in the Upper Mississippi Valley was reduced to a small area of D0 over central Minnesota reflecting long-term moisture deficits. The May precipitation resulted in minor contraction of the drought areas in Idaho and Montana, but moisture deficits over the last 4 to 5 years kept the long-term drought well entrenched in the region. A band of D0 was added to coastal Washington and Oregon, reflecting 2- to 6-month precipitation deficits.

At the forefront of the Western drought situation are nearly regionwide water-supply shortages. Spring warmth has lengthened the Western growing season, placing additional demands on already drought-lowered reservoirs. With near- to below-normal spring and summer runoff expected virtually regionwide in 2004, most reservoirs will “lose ground” compared to normal levels. Forecasts for below-normal runoff in 2004 follow an extremely dry 4-year period for much of the interior West. In addition, drought continues to ravage many Western pastures and rangelands and increases the risk of wildfires. In May, several large fires were ignited by lightning in the Southwest, with the largest of these being the KP fire in Arizona and the Peppin fire in New Mexico. Large fire activity also occurred this month in southern California, Nevada and parts of Florida.

Much of Alaska was wetter than normal, but drier than normal conditions prevailed at the primary stations along the southern coastal band and southeastern panhandle. D0 contracted in central Alaska but expanded to the south and southeast to cover the panhandle.

MEXICO: May was drier than normal across much of northern Mexico and along the west coast from Michoacan northwards. Rainfall was above-normal across many areas in the south and east, especially southern Zacatecas to Guanajuato, southern Veracruz to southern Quintana Roo, and parts of Guerrero. The abnormal wetness in central and eastern Mexico reflects a stronger and earlier start to the Mexican monsoon season. The wet conditions of May added to those of March and April, which had resulted in a noticeable reduction of severe drought conditions across much of the country the previous month. The National Meteorological Service of Mexico noted that no reports of drought impacts have been received from any part of Mexico this month.

The spot of D0 along the border of Oaxaca and Veracruz was removed reflecting recent and long-term wet conditions. But a patch of D0 was added along the west coast in Nayarit and the southern tip of Sinaloa, and the D0 in northwest Chihuahua was slightly expanded to cover a little more of west central Chihuahua, reflecting recent dryness.